

CLAIMS

1. An ultrasonic diagnostic apparatus, comprising:
a sound velocity calculation means for calculating the
5 sound velocity of ultrasonic waves based on the difference
between the reflex time of ultrasonic wave reflected from
the inner surface of a window in contact with a test subject
and the reflex time of ultrasonic wave reflected from the
outer surface of the window and the thickness of the window;
10 a temperature calculation means for calculating the
temperature of the window based on sound velocity calculated
by the sound velocity calculation means; and
an ultrasonic wave output control means for controlling
ultrasonic wave output based on temperature calculated by
15 the temperature calculation means.

2. An ultrasonic diagnostic apparatus, comprising:
a sound velocity calculation means for calculating the
sound velocity of ultrasonic waves based on the reflex time
20 of ultrasonic wave passing through fluid wherein sonic
elements vibrate and reflected from the inner surface of a
window in contact with a test subject and the thickness of
the fluid;
a temperature calculation means for calculating the
25 temperature of the fluid based on the sound velocity

calculated by the sound velocity calculation means; and
an ultrasonic wave output control means for controlling
ultrasonic wave output based on temperature calculated by
the temperature calculation means.

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3. The ultrasonic diagnostic apparatus according to claim
1 or 2, further comprising:

a memory means for storing the thickness of said window
and the thickness of said fluid obtained by detecting said
10 reflex times of ultrasonic waves under a certain temperature
beforehand and performing calibrations respectively, for the
window and the fluid; and, wherein

said sound velocity calculation means calculates the
sound velocity of ultrasonic waves based on the thickness
15 of the window or the thickness of the fluid stored by the
memory means.